

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 7A (UNION AVENUE) AND CONGRESS AVENUE IN HARFORD COUNTY, MARYLAND. MD 7A IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION WILL OPERATE IN A NEMA FOUR-PHASE, SEMI-TRAFFIC-ACTUATED MODE WITH THE MD 7A APPROACHES OPERATING CONCURRENTLY AND THE CONGRESS AVENUE APPROACHES OPERATING CONCURRENTLY.

AN ALTERNATE PEDESTRIAN PHASE IS PROVIDED ACROSS BOTH LEGS OF MD 7A AND PEDESTRIAN INDICATIONS ARE PROVIDED ACROSS BOTH LEGS OF CONGRESS AVENUE.

TYPICAL MESSAGES FOR ACCESSIBLE PED SIGNALS

MD 7A (UNION AVENUE) AND CONGRESS AVENUE - WEST LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS UNION AT CONGRESS, WAIT." *

WALK: RAPID TICK

MD 7A (UNION AVENUE) AND CONGRESS AVENUE - EAST LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS UNION AT CONGRESS, WAIT." *

WALK: RAPID TICK

CONGRESS AVENUE AND MD 7A (UNION AVENUE) - NORTH LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS CONGRESS AT UNION, WAIT." *

WALK: RAPID TICK

CONGRESS AVENUE AND MD 7A (UNION AVENUE) - SOUTH LEG

STREETS AT 90 DEGREES

WAIT: "WAIT TO CROSS CONGRESS AT UNION, WAIT." *

WALK: RAPID TICK

* MESSAGE USED IF DISTANCE FROM NEAREST PUSHBUTTON FOR PERPENDICULAR CROSSING IS < 10'

** MESSAGE USED IF CROSSWALK DIVERGES FROM OR CONVERGES WITH PARALLEL TRAFFIC

NOTE: MESSAGES FOR INTERSECTION CONFIGURATIONS, VARYING FROM THE ABOVE ARE TO BE APPROVED BY THE DIRECTOR, OFFICE OF TRAFFIC AND SAFETY.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH INTERSECTION MONITOR WITH BATTERY BACKUP FOR PHONE DROP AND ASSOCIATED HARNESSSES HOUSED IN A NEMA SIZE "S" BASE MOUNTED CABINET.

PHONE DROP

UPON COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

MAINTENANCE OF TRAFFIC

THE FOLLOWING TRAFFIC CONTROL STANDARDS SHALL BE REFERENCED FOR THE PROJECT. ADDITIONAL TRAFFIC CONTROL STANDARDS MAY BE USED AS DIRECTED BY THE ENGINEER.

STANDARD NO. MD-104.04-01 (SHOULDER WORK)

STANDARD NO. MD-104.02-13 (INTERSECTION FLAGGING OPERATION)

PROJECT CONTACTS

THE CONTACT PERSONS FOR SHA ARE AS FOLLOWS:

MS. ERIN KUHN
ASSISTANT DISTRICT ENGINEER - TRAFFIC
PHONE: (410) 229-2381

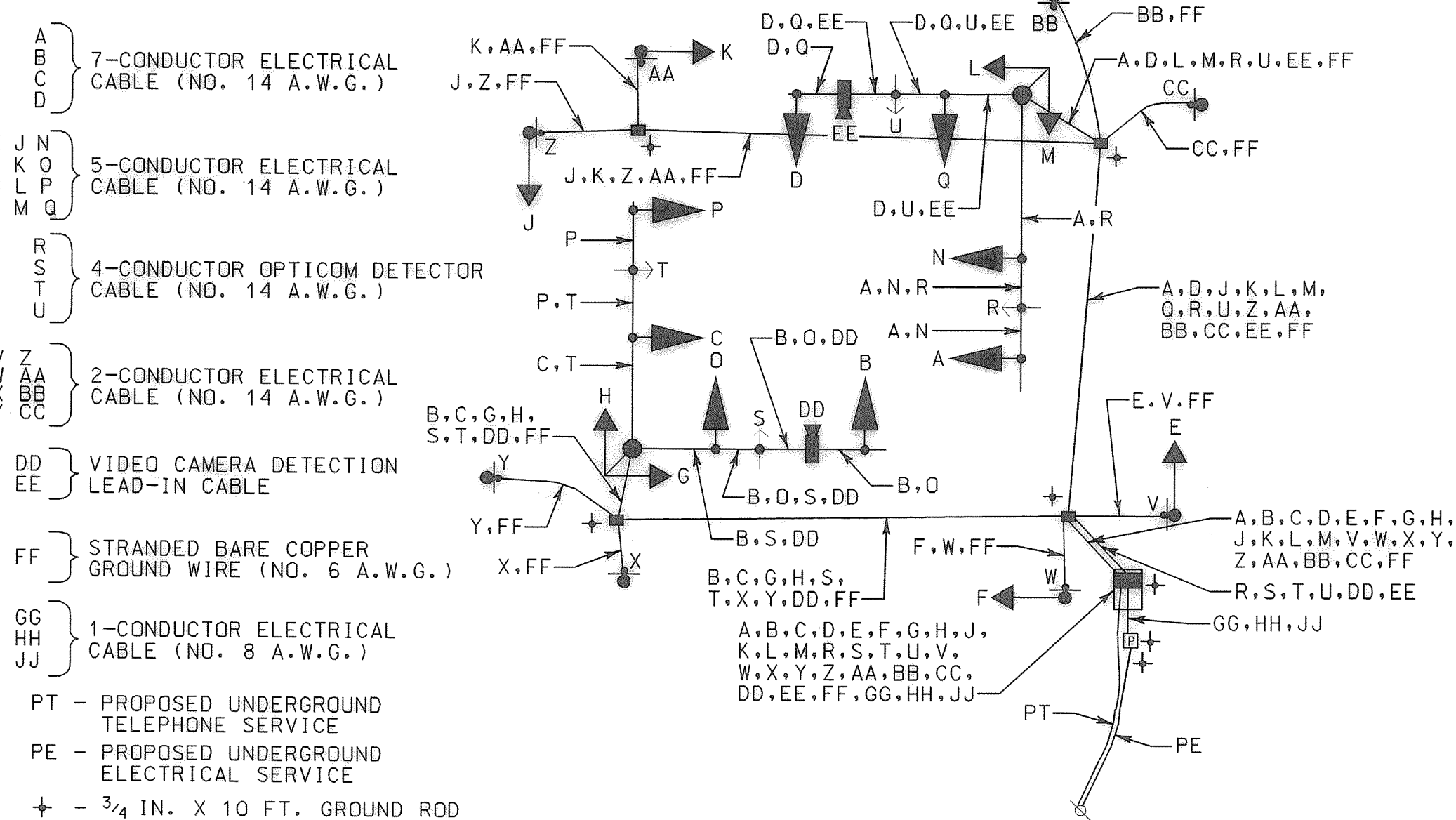
MR. MIKE PASQUARIELLO
DISTRICT UTILITY ENGINEER
PHONE: (410) 229-2341

MR. ANDRE FUTRELL
ASSISTANT DISTRICT ENGINEER - MAINTENANCE
PHONE: (410) 229-2361

MR. ROBERT SNYDER
ASSISTANT CHIEF, TRAFFIC OPERATIONS DIVISION
PHONE: (410) 787-7631

WIRING KEY

WIRING DIAGRAM



EQUIPMENT LIST "A"

A. EQUIPMENT TO BE SUPPLIED BY THE SHA

ITEM NO.	QUANTITY	DESCRIPTION
9104	1 EACH	CONTROLLER CABINET, SIZE "S" W CONTROLLER, VIDEO INTERFACE EQUIP. 1-8 CAMERAS
9571	52 S.F.	SHEET ALUMINUM SIGNS TO CONSIST OF (POLE MOUNT) : - 4 EACH D-3(1) SIGN (VARIABLE X 16 IN.) DUAL FACED - MAST ARM MOUNT - 4 EACH R10-3(1) SIGN (9 IN. X 15 IN.) TO READ "PUSHBUTTON TO CROSS UNION AVENUE" - 4 EACH R10-3(1) SIGN (9 IN. X 15 IN.) TO READ "PUSHBUTTON TO CROSS CONGRESS AVENUE"

EQUIPMENT LIST "C"

C. EQUIPMENT TO BE REMOVED AND RETURNED TO SHA

SHA FORCES SHALL REMOVE THE CONTROLLER AND ALL AUXILIARY EQUIPMENT FROM THE CONTROLLER CABINET. THE CABINET AND ALL OTHER MATERIALS TO BE REMOVED BY THE CONTRACTOR SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY THE CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	2 EACH	MAINTENANCE OF TRAFFIC
2002	8 C.Y.	TEST PIT EXCAVATION
5003	350 L.F.	REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS
6002	155 S.F.	5 INCH CONCRETE SIDEWALK
8001	24 EACH	12 INCH LED SIGNAL HEAD SECTION
8002	1 EACH	2 WIRE CENTRAL CONTROL UNIT
8008	8 EACH	AUDIBLE/TACTILE PEDESTRIAN PUSHBUTTON
8009	8 EACH	BREAKAWAY PEDESTAL POLE (ANY SIZE)
8012	1 EACH	EMBEDDED METERED SERVICE PEDESTAL
8014	1 EACH	INSTALL CONTROLLER AND CABINET - BASE MOUNT (ANY SIZE)
8016	8 EACH	LED 16 INCH COUNTDOWN PEDESTRIAN SIGNAL HEADS
8024	1 EACH	REMOVE & DISPOSE MATERIAL & EQUIPMENT (PER ASSIGNMENT)
8025	2 EACH	TWIN MAST ARM POLE & 50 FT/50 FT MAST ARMS ANY 'T' DIMENSION
8029	2 EACH	VIDEO DETECTION CAMERA & CABLE UP TO 500 FT
8033	650 L.F.	INSTALL 4 CONDUCTOR OPTICOM CABLE
8039	140 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - SLOTTED
8040	540 L.F.	SCHEDULE 80 RIGID PVC CONDUIT UP TO 4 INCHES - TRENCHED
8042	55 S.F.	INSTALL OVERHEAD OR GROUND MOUNTED SIGN (INCLUDING ALL HARDWARE)
8044	460 L.F.	NO. 6 AWG STRANDED BARE COPPER GROUND WIRE
8047	75 L.F.	ELECTRICAL CABLE 1-CONDUCTOR NO. 8 AWG - THHN/THWN
8048	4 EACH	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8049	1 EACH	DISCRIMINATOR MODULE, 4 CHANNEL, NO. 764
8050	1 EACH	OPTICOM EMITTER SYSTEM, 700 SERIES
8051	4 EACH	OPTICOM NO. 721 DETECTOR EYE
8053	4 EACH	CUT, CLEAN, GALVANIZE AND CAP TRAFFIC SIGNAL STRUCTURE
8055	985 L.F.	ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG)
8057	1025 L.F.	ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG)
8058	655 L.F.	ELECTRICAL CABLE - 7 CONDUCTOR (NO. 14 AWG)

PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
PHASE 2 + 6	G	G	G	G	R	R	R	R	WK	WK	WK	WK	DW	DW	DW	DW
PED CLEARANCE	G	G	G	G	R	R	R	R	FLOW	FLOW	FLOW	FLOW	DW	DW	DW	DW
2 + 6 CHANGE	Y	Y	Y	Y	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 + 8	R	R	R	R	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
4 + 8 CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
PHASE 4 + 8 ALT	R	R	R	R	G	G	G	G	DW	DW	DW	DW	WK	WK	WK	WK
PED CLEARANCE	R	R	R	R	G	G	G	G	DW	DW	DW	DW	FLOW	FLOW	FLOW	FLOW
4 + 8 ALT CHANGE	R	R	R	R	Y	Y	Y	Y	DW	DW	DW	DW	DW	DW	DW	DW
EMERGENCY PRE-EMPTION 1	G	G	G	G	R	R	R	R	DW	DW	DW	DW	DW	DW	DW	DW
EMERGENCY PRE-EMPTION 2	R	R	R	R	G	G	G	G	DW	DW	DW	DW	DW	DW	DW	DW
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLR	FLR	FLR	FLR	DARK	DARK	DARK	DARK	DARK	DARK	DARK	DARK

TOD NO: XY125-11
SHA NO: HA400B54
MD 7A @ Congress Avenue

STATE OF MARYLAND
DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
OFFICE OF TRAFFIC & SAFETY
TRAFFIC ENGINEERING DESIGN DIVISION
MD 7A (Union Ave.) and Congress Ave.
Havre De Grace, MD

GENERAL INFORMATION SHEET

SCALE	NONE	ADVERTISED DATE	08/27/2012	CONTRACT NO.	XY1255185
DESIGNED BY	S. Bloss	COUNTY	Harford		
DRAWN BY	S. Bloss	LOGMILE	12A00701.74		
CHECKED BY	N. Leary	TMS NO.	L110		
F.A.P. NO.		TOD NO.			

TS NO.	603C	DRAWING	TSP-2	OF	2	SHEET NO.	2	OF	2
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WR&A
WHITMAN, REQUARDT & ASSOCIATES, LLP
801 South Caroline Street, Baltimore, Maryland 21231

PLOTTED: August 27, 2012
FILE: N:\91688-01\Y\CADD\pSG-A002_L110.dgn